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09/707,922	11/08/2000	Christopher R. Dance	D/99482	9612

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EXAMINER
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SELBY, GEVELL V

ART UNIT	PAPER NUMBER
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2615

DATE MAILED: 01/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/707,922

Applicant(s)

DANCE, CHRISTOPHER R.

Examiner

Gevell Selby

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/7/04
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 19-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 19-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments, see the amendment, filed 7/7/04, with respect to the rejection(s) of claim(s) 1-5, 10, 12, 14, and 17 under 35 U.S.C. 102(e) and 6-9, 11, 13, 15, and 16 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Chen, US 6,552,744 and Miller et al, US 6,233,015.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-5, 10, 12, 14, and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen, US 6,552,744, in view of Miller et al., US 6,233,015.**

In regard to claim 1, Chen, US 6,552,744, discloses a camera comprising:

a mode select (see figure 5, element 23a) for selecting a scene selection mode of operation of the camera (see column 8, lines 13-17);  
a display device (see figure 1, element 27) for producing a visual display of a first image representing a stored image (see column 4, lines 28-34);

a motion detector (see figure 1, element 21) for detecting motion of the camera when the first image or the selection scene is displayed on the display device (see column 3, lines 44-48);

an image generator (see figure 1, element 19) communicating with the mode select, the display device, and the motion detector for controlling selection of the stored image within the selection scene by motion of the camera detected by the motion detector (see column 3, lines 48-53);

the image generator generating a selection scene for display on the display device of the camera in response to user input selecting the scene selection mode with the mode select (see column 3, lines 11-17).

The Chen reference does not disclose that the display displays a selection scene including a plurality of icons, where each icon represents a stored image and wherein the image generator receives input from the motion detector indicating movement of the camera when the selection scene is displayed on the display device to control a panable window of the arrangement of icons making up a portion of the selection scene displayed on the display device such that the panable window wraps the selection scene displayed on the display device as a continuous loop the repeats when displaying boundaries of the selection.

Miller et al., US 6,233,015, discloses a camera wherein the display (see figure 1, element 14) displays a selection scene including a plurality of icons (see figure 3, elements 42-46), where each icon represents a stored image (see column 5, lines 40-49) and wherein the image generator receives input from the user input indicating movement of the film strip when the selection scene is displayed on the

Art Unit: 2615

display device to control a panable window of the arrangement of icons making up a portion of the selection scene displayed on the display device (see column see column 5, lines 59-62) such that the panable window wraps the selection scene displayed on the display device as a continuous loop the repeats when displaying boundaries of the selection (see column 8, lines 53-61).

It would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify Chen, US 6,552,744, in view of Miller et al., US 6,233,015 to have the display to display a selection scene including a plurality of icons, where each icon represents a stored image and wherein the image generator receives input from the motion detector indicating movement of the camera when the selection scene is displayed on the display device to control a panable window of the arrangement of icons making up a portion of the selection scene displayed on the display device such that the panable window wraps the selection scene displayed on the display device as a continuous loop the repeats when displaying boundaries of the selection, in order to allow the user to easily scroll through and select a desired saved image to view on the screen.

In regard to claim 2, Chen, US 6,552,744, in view of Miller et al., US 6,233,015, discloses a camera according to claim 1, wherein the image generator, in response to user input selection an icon based on its position in the arrangement of the selection scene displayed on the display device, retrieves the stored image represented by the selected icon for display as the first image on the display device of the camera (see column 7, lines 18-25).

In regard to claim 3, Chen, US 6,552,744, in view of Miller et al., US 6,233,015, discloses a camera according to claim 2, wherein the image generator, in response to input from the motion detector indicating movement of the camera when the first image is displayed on the display device (see Chen: column 3, lines 44-53), controlling a panable window of a portion of the first image displayed on the display device such that the panable window wraps the first image as a continuous loop on the display device when displaying boundaries of the first image (see Miller: column 8, lines 53-61).

In regard to claim 4, Chen, US 6,552,744, in view of Miller et al., US 6,233,015, discloses a camera according to claim 3. The Chen reference discloses wherein the image generator is operable to pan the first image relative to the stored image in response to detected motion of the camera when the detected motion for panning is movement of the camera in a plane generally parallel to said display device (see column 3, lines 44-53).

In regard to claim 5, Chen, US 6,552,744, in view of Miller et al., US 6,233,015, discloses a camera according to claim 3, wherein. The Chen reference discloses that the image generator is operable to pan the first image relative to the stored image in response to detected motion of the camera when the detected motion for panning is tilting of the camera to change the attitude thereof (see column 3, lines 28-53: It is inherent the rotating in different directions (pitch yaw and roll) includes tilting).

In regard to claim 10, Chen, US 6,552,744, in view of Miller et al., US 6,233,015, discloses a camera according to claim 2, wherein it is inherent the

Art Unit: 2615

image generator of the Chen reference (see figure 1, element 19 and column 3, lines 11-18) is operable to vary the plurality of icons representing stored images in the selection scene displayed on the display device depending on their corresponding stored image size, since the term “operable to” delimits functional claim language and the reference discloses the structure claimed.

In regard to claim 12, Chen, US 6,552,744, in view of Miller et al., US 6,233,015, discloses a camera according to claim 1. The Chen reference discloses wherein the motion detector comprises at least one accelerometer (see column 3, lines 57-59).

In regard to claim 14, Chen, US 6,552,744, in view of Miller et al., US 6,233,015, discloses a camera according to claim 1. The Chen reference discloses wherein the motion detector comprises at least one attitude sensor (see column 3, lines 27-36).

In regard to claim 21, Chen, US 6,552,744, discloses a camera, comprising:

- a display device (see figure 1, element 27) for producing a visual display of a first image representing a stored image (see column 4, lines 28-34);

- a motion detector (see figure 1, element 21) for detecting motion of the camera when a panable window including all or a portion of the first image is displayed on the display device (see column 3, lines 44-48);

- an image generator (see figure 1, element 19) communicating with the display device and the motion detector for controlling with the motion

of the camera detected by the motion detector the portion of the first image displayed in the panable window (see column 3, lines 48-53);

wherein, in response to receiving input from the motion detector indicating movement of the camera when only a portion of the first image is displayed on the display device (see column 3, lines 48-51).

The Chen reference does not disclose the image generator wraps the first image as a continuous loop in the panable window when displaying boundaries of the first image on the display device.

Miller et al., US 6,233,015, discloses a camera wherein the display (see figure 1, element 14) displays a selection scene including a plurality of icons (see figure 3, elements 42-46), wherein one of the icons represent a reduced version of a stored image displayed in full size on the display and the others represent other stored images that can be displayed (see column 5, lines 40-49) and wherein the image generator receives input from the user input indicating movement of the film strip when the selection scene is displayed on the display device to control a panable window of the arrangement of icons making up a portion of the selection scene displayed on the display device (see column see column 5, lines 59-62) such that the panable window wraps the selection scene displayed on the display device as a continuous loop the repeats when displaying boundaries of the selection (see column 8, lines 53-61).

It would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify Chen, US 6,552,744, in view of Miller et al., US 6,233,015, so that wherein, in response to receiving input from



the motion detector indicating movement of the camera when only a portion of the first image is displayed on the display device, the image generator wraps the first image as a continuous loop in the panable window when displaying boundaries of the first image on the display device, , in order to allow the user to easily scroll through and select a desired saved image to view on the screen.

In regard to claim 22, Chen, US 6,552,744, in view of Miller et al., US 6,233,015, discloses a camera according to claim 21, wherein the first image is a video image recorded by the camera while recording motions of the camera using the motion detector (see Chen: column 3, lines 37-43).

In regard to claim 23, Chen, US 6,552,744, in view of Miller et al., US 6,233,015, discloses a camera according to claim 22, wherein image generator plays back the video image using the recorded motions of the camera (see Chen: column 3, lines 37-53).

In regard to claim 24, Chen, US 6,552,744, in view of Miller et al., US 6,233,015, discloses a camera according to claim 23, wherein image generator plays back the video image while maintaining a fixed viewpoint of the video image using the recorded motions of the camera that recorded the motion (see Chen: column 3, lines 37-53).

3. **Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen, US 6,552,744, in view of Miller et al., US 6,233,015, as applied to claim 3 above, and further in view of Hedberg, US 6,411,275.**

In regard to claim 6, Chen, US 6,552,744, in view of Miller et al., US 6,233,015, discloses camera according to claim 3. The Chen and Miller references do not disclose that the image generator is operable to zoom the first image relative to the stored image.

Hedberg, US 6,411,275, discloses a method for displaying a complete or a determined part of a screen image wherein, when the display device is moved essentially in the plane of the display, different parts of a complete image are shown on the display screen and when the display device is moved essentially in the direction perpendicular to the plane of the display, the magnification of the screen image is changed (see column 2, lines 45-55).

It would have been obvious to a person skilled in the art at the time of invention to have been motivated to modify Chen, US 6,552,744, in view of Miller et al., US 6,233,015, and further in view of Hedberg, US 6,411,275, to have the image generator is operable to zoom the first image relative to the stored image in order to display full documents in a proper and readable way as taught by Hedberg (see column 1, lines 51-57).

In regard to claim 7, Chen, US 6,552,744, in view of Miller et al., US 6,233,015, further in view of Hedberg, US 6,411,275, discloses a camera according to claim 6, wherein the image generator is operable to control the zoom factor of the first image relative to the stored image in response to detected motion of the camera (see Hedberg: column 4, lines 4-12).

It is implied in the Hedberg reference that the controller of the display controls the zoom factor relative to the motion of the camera because moving the

Art Unit: 2615

camera zooms in or all the way out to view entire document which would require changing the zoom factor.

In regard to claim 8, Chen, US 6,552,744, in view of Miller et al., US 6,233,015, and further in view of Hedberg, US 6,411,275, discloses a camera according to claim 7, wherein the detected motion for zoom control is movement of the camera in a direction generally perpendicular to a plane of the display device (see Hedberg: column 2, lines 52-54).

In regard to claim 9, Chen, US 6,552,744, in view of Miller et al., US 6,233,015, in view of Hedberg, US 6,411,275, discloses a camera according to claim 6, wherein the image generator and the motion detector are operable to control a panning speed for panning the first image relative to the stored image, in response to a zoom factor of the first image (see Hedberg: column 3, line 62 to column 4, line 12).

It is implied that the panning speed is adjusted in response to the zoom factor because a document zoomed all the way out would have to be panned at a slower speed than one zoomed all the way in order for both to be scrolled at a pace that is readable.

**4. Claims 11, 13, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen, US 6,552,744, in view of Miller et al., US 6,233,015, as applied to claim 1 above, and further in view of Verplaetse, 1996.**

In regard to claim 11, Chen, US 6,552,744, in view of Miller et al., US 6,233,015, discloses a camera according to claim 1. The Chen and Miller

references do not disclose further comprising a filter for filtering jitter from the detected motion.

The Verplaetse reference teaches that an extended Kalman filter can be used in a state-estimation scheme to implement camera motion analysis with a joint inertial-optical motion estimator (see pg. 642, column 2, paragraph 1). The reference further teaches the inertial sensors used for tracking a video camera should thus have optimal frequency response in the 3 to 8 Hz range.

It would have been obvious to a person skilled in the art at the time of invention to have been motivated to modify Chen, US 6,552,744, in view of Miller et al., US 6,233,015, and further in view of Verplaetse, 1996, to have a filter for cutting off high frequency noise to remain to the optical frequency range tracking a video camera as taught by Verplaetse and therefore, cutting out jitter.

In regard to claim 13, Chen, US 6,552,744, in view of Miller et al., US 6,233,015, and further in view of Verplaetse, 1996, discloses a camera according to claim 12. The Verplaetse reference discloses further comprising a filter for compensating the output from the accelerometer or accelerometers for gravity (see pg. 642, column 2, paragraph 1).

In regard to claim 15, Chen, US 6,552,744, in view of Miller et al., US 6,233,015, discloses a camera according to claim 1. The Chen and Miller references do not disclose that the motion detector comprises an optical sensor for detecting motion by correlation with a detected optical scene.

The Verplaetse reference teaches of uses optical gyros that operate using the inertial properties of light for tracking the motion of devices like the camera in the reference (see page 647, paragraph 1).

It would have been obvious to a person skilled in the art at the time of invention to have been motivated to modify Chen, US 6,552,744, in view of Miller et al., US 6,233,015, and further in view of Verplaetse, 1996, to use the optical gyros as an alternative to the acceleration sensor in order to track the motion of the camera as taught by Verplaetse.

**5. Claim 16, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen, US 6,552,744, in view of Miller et al., US 6,233,015, as applied to claim 1 above, and further in view of Kobayashi et al., US 5,748,228.**

In regard to claim 16, Chen, US 6,552,744, in view of Miller et al., US 6,233,015, discloses a camera according to claim 1. The Chen and Miller references do not disclose the camera is a document imaging camera and the first image is a document image.

Kobayashi et al., US 5,748,228 discloses a document-imaging camera with a display for reading imaged documents or enlarged portions of the documents to provide an inputting/outputting device that is capable of being used easily and which has excellent portability (see abstract).

It would have been obvious to a person skilled in the art at the time of invention to modify Chen, US 6,552,744, in view of Miller et al., US 6,233,015, and further in view of Kobayashi et al., US 5,748,228, to have a document

imaging camera and the first image is a document image in order to capture and display documents easily while maintaining portability as taught by Kobayashi.

In regard to claim 19, Chen, US 6,552,744, discloses a method for viewing document images using a camera, comprising:

receiving a first user input selecting an image (see column 8, lines 13-18));

sensing movement of the camera when a panable window displayed on a display device of the camera records part of the document image (see column 3, lines 44-48);

responsive to sensing the movement of the camera when the panable window is displayed, controlling what parts of the image are displayed in the panable window on the display device (see column 8, lines 48-53);

The Chen reference does not disclose the images are document images and wherein the parts of the document image displayed are wrapped in the panable window as a continuous loop on the display device to enable reading the document image in a continuous direction when the panable image records only a portion of the document image and the portion of the document image displayed includes at least one of its boundaries.

Miller et al., US 6,233,015, discloses a camera wherein the parts of the image displayed are wrapped in the panable window as a continuous loop on the display device to enable viewing the image in a continuous direction when the panable image records only a portion of the image or a reduced image on the

display and the portion of the image or reduced image displayed includes at least one of its boundaries (see column 5, lines 40-47 and column 8, lines 53-61)

Kobayashi et al., US 5,748,228 discloses a document-imaging camera with a display for reading imaged documents or enlarged portions of the documents to provide an inputting/outputting device that is capable of being used easily and which has excellent portability (see abstract).

It would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify Chen, US 6,552,744, in view of Miller et al., US 6,233,015, and further in view of Kobayashi et al., US 5,748,228, to have the images are document images and wherein the parts of the document image displayed are wrapped in the panable window as a continuous loop on the display device to enable reading the document image in a continuous direction when the panable image records only a portion of the document image and the portion of the document image displayed includes at least one of its boundaries, in order for the user to easily select a document image from a stored images to enlarge and read as a full size image.

In regard to claim 20, Chen, US 6,552,744, in view of Miller et al., US 6,233,015, and further in view of Kobayashi et al., US 5,748,228, discloses the method according to claim 19, performing one of a zoom operation (see Kobayashi: column 5, lines 27-30) and a pan operation to the document image relative to the part of the document image displayed in the panable window in response to sensing the movement of the camera (see Chen: column 3, lines 44-53).

*Conclusion*

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gevell Selby whose telephone number is 703-305-8623. The examiner can normally be reached on 8:00 A.M. - 5:30 PM (every other Friday off).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Christensen can be reached on 703-308-9644. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



Art Unit: 2615

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

gvs



TUAN HO  
PRIMARY EXAMINER